

Abstract of the DisclosureSub
31CONDITIONAL INSTRUCTION EXECUTION IN A COMPUTER

A computer system is disclosed capable of conditionally carrying out an operation defined in a computer instruction. The computer instruction is implemented on so-called packed operands, that is operands containing a plurality of packed objects in respective lanes. An operation defined in the computer instruction is conditionally carried out in dependence on stored condition values which determine for each lane whether or not the operation is to be executed on objects in that lane.

An execution unit for a computer system, a computer system and a method of executing instructions are defined.

1. A computer system comprising:
a. a plurality of packed operands, each operand containing a plurality of packed objects in respective lanes;
b. a computer instruction defining an operation to be carried out on the packed operands;
c. a condition code register storing condition values for each lane;
d. a control unit for controlling the execution of the computer instruction;
e. an execution unit for executing the operation defined in the computer instruction, the execution unit being adapted to execute the operation on the packed operands in dependence on the condition values stored in the condition code register.